

ABSTRACT OF THE DISCLOSURE

A method and apparatus is provided for depositing and planarizing a material layer on a substrate. In one embodiment, an apparatus is provided which includes a partial enclosure, a permeable disc, a diffuser plate and optionally an anode. A substrate carrier is positionable above the partial enclosure and is adapted to move a substrate into and out of contact or close proximity with the permeable disc. The partial enclosure and the substrate carrier are rotatable to provide relative motion between a substrate and the permeable disc. In another aspect, a method is provided in which a substrate is positioned in a partial enclosure having an electrolyte therein at a first distance from a permeable disc. A current is optionally applied to the surface of the substrate and a first thickness is deposited on the substrate. Next, the substrate is positioned closer to the permeable disc. During the deposition, the partial enclosure and the substrate are rotated relative one another.